CLAIM AMENDMENTS

1. (Currently Amended) A porous material for the treatment of gaseous media containing volatile organic compounds, the porous material presenting an adsorption capacity of about 20 to 30% with respect to its dry weight and comprising a composite structure of silicon and carbon, carbon, hydroxyl, and oxygen, about one-third of the total volume of the material ~~comprising a~~being peripheral volume ~~of~~and the remaining volume being central volume, wherein 75 to 85% porosity of the peripheral volume is produced by pores having dimensions in a range from 10 to 50 Å, ~~and about two-thirds of the material comprising a central volume,~~ 80 to 90% of the central volume ~~comprising~~is produced by cavities having dimensions in a range from about 200 Å to 2 x 10^4 Å.

Claim 2 (Cancelled).

3. (Previously Presented) The material according to Claim 1, having a specific surface of between 1200 and 2200 m^2/g.

4. (Previously Presented) The material according to Claim 1, comprising about 20 wt% aluminum oxides and about 5 wt% iodides.

5. (Previously Presented) The material according to Claim 1, having a relative humidity lower than 2% of its dry weight.

6. (Previously Presented) A process for the treatment of a gaseous medium containing volatile organic compounds, consisting of directing a flow of the gaseous medium over a porous material according to Claim 1, to cause adsorption of the flow, which penetrates pores and cavities of the material so absorption of the flow, during which a chemical reaction occurs between the volatile organic compounds of the flow and the material, to transform the volatile organic compounds into nontoxic gases.

7. (Previously Presented) The process according to Claim 6, in which contact time between the gaseous flow and the material is between 0.08 and 0.12 sec.

8. (Currently Amended) The process for obtaining a porous material according to Claim 1 comprising:

preparing a base constituent of clay comprising about 30 wt% of a clay with a particle size greater than 180 μm and about 70 wt% of a clay with a particle size between 10 and 20 μm;

impregnating the base constituent with an aqueous solution comprising acetic acid, citric acid, and peroxide,;

pretreating the base constituent impregnated with the aqueous solution by mixing at a first speed to create a porous structure,

mixing the base constituent, after pretreating with an acidified liquid with a strong oxidizing potential, at a second speed lower than the first speed, to cause the acidified liquid to penetrate the pretreated constituent and to form a gel,;

mixing the gel with a solution with a strong oxido-reductive potential, a mixture of carbon and alumina, and calcium sulfate; and

drying and pressing the mixture to produce the porous material, about one-third of the total volume of the material ~~comprising a~~being peripheral volume ~~of~~and the remaining volume being central volume, wherein 75 to 85% porosity of the peripheral volume is produced by pores having dimensions in a range from 10 to 50 Å, and ~~about two-thirds of the material comprising a central volume,~~ 80 to 90% of the central volume ~~comprising~~is produced by cavities having dimensions in a range from about 200 Å to 2 x 10^4 Å.

9. (Previously Presented) The process according to Claim 8, implemented continuously.

10. (Previously Presented) The process according to Claim 8, including heating the base constituent impregnated with the aqueous solution in pretreating, at a temperature between 200 and 250°C.

11. (Previously Presented) The process according to Claim 8, including applying ultrasound waves at pretreating, at a unit power of 2000 W and with an amplitude of 15 to 30 μm.

12. (Previously Presented) The process according to Claim 8, including, in pretreating, mixing at a third speed, lower than the first and second speeds, to enlarge the cavities and pores.

13. (Previously Presented) The process according to Claim 8, including filtering a liquid resulting from pretreating the base constituent.

14. (Previously Presented) The process according to Claim 8, in which the acidified liquid comprises about 10% by volume of a solution with a strong oxidizing potential.

15. (Previously Presented) The process according to Claim 8, including mixing the base constituent, after pretreating, and the acidified liquid while being heated to a temperature between 90 and 120°C.

16. (Previously Presented) The process according to Claim 8, including mixing of the gel at a temperature between 70 and 80°C.

17. (Previously Presented) The process according to Claim 8, wherein the treatment by ultrasound waves, to dry the mixture is carried out at a length of 20 to 30 cm, under a specific output of 3 to 5000 W, an amplitude of 15 to 60 μm, and a frequency of about 20 MHz.

18. (Previously Presented) The process according to Claim 8, including drying the mixture under a partial vacuum of 120 to 150 mbar and at a temperature between 90 and 100°C.

19. (Previously Presented) The process according to Claim 8, comprising extruding the mixture, after drying.

Claims 20-27 (Cancelled).

This listing of claims replaces all prior versions, and listings, of claims in the application.